Developing Vocal Technique in the Choral Rehearsal

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What is a warm-up?

“Warm-up is an exercise used to stimulate and increase blood flow to the muscles involved, resulting in increased flexibility and less likelihood of injury.

A singer’s warm-up should also consist of a selection of exercises designed to develop technique as required.”

[S. L. Gover, Choral Journal, October 2001]

Why warm-up?

• Prevent Damage/vocal abuse;
• Develop the fundamentals of vocal technique (refine and perfect sound);
  See Vocal Technique Pyramid
• Maintain the trained voice;
• Build and/or enhance aural skills;
• Build and/or enhance listening skills.

REMEMBER: Singing is a learned behavior; most people are not natural singers and will require vocal instruction if they are going to reach their potential.

When?

• Beginning of rehearsal;
• Throughout rehearsal;
  • Set the singers up for success;
  • Tailor vocal exercises to address the needs of the literature.

How long?

• Singers arrive in varying degrees of readiness so length of time varies;
  “A short series of exercises can adjust the mood, order the mind, capture the remaining energies, and relax tense muscles that can alter singing technique and predispose the singer to vocal fatigue and injury.”

(Smith/Sataloff, 111)
Who?

- Responsibility of director;
  - Director doesn’t have to be a great singer but must have an “ear” for excellent vocal quality and know the process of how to produce that sound.
  - Carefully monitor warm-ups and provide appropriate feedback for the singers.

What should be included?

- Physical and mental warm-up;
- Articulation exercises that energize the voice;
- Voiced and unvoiced breathing exercises;
- Unison melodic exercises for uniformity of vowel and blend;
- Choral exercises for intonation and balance;
- Exercises based on difficult aspects of the repertoire;
- Exercises to train and develop the ear.

How do vocal solo and choral warm-ups differ?

**Vocal Solo Warm-ups**
- Should be extended, detailed, focused on individual needs;
- Focus on alignment, breath motion, flow, and management;
- May cover multiple lifts/breaks and be of considerable length.

**Choral Warm-ups**
- Must encourage independence of singing but also focus on ensemble;
- Focus on alignment, breath motion and flow as breath management is best taught in the solo setting;
- Use simple 3-5 note exercises with limited lifts.
- Build esprit de corps so every singer strives to do their best.

Engage the Mind

- “Teach singers to think!”
  - There is no substitute for intelligence.
  - EMPOWER rather than ENABLE.
  - The brain is a thinking organ that learns and grows by interacting with the world through perception and action.
  - Mental stimulation improves brain function and actually protects against cognitive decline, as does physical exercise.

Engage the Mind

- The human brain is able to continually adapt and rewire itself. Even in old age, it can grow new neurons.
- Severe mental decline is usually caused by disease, whereas most age-related losses in memory or motor skills simply result from inactivity and a lack of mental exercise and stimulation. In other words, use it or lose it.
  - Try neural building and strengthening exercises with everyday movements.
  - Use your opposite hand to brush your teeth, dial the phone, operate the computer mouse, or operate the TV remote.
Engage the Mind

- Mirrored Movement
- "Touch Canon" 4/4, 3/4, 2/4, 1/4;
- Use one of three positions:
  - together,
  - one stationary while one moves;
  - two different moves;

If you are feeling uncomfortable and awkward, don’t worry, your brain is learning a new skill.

Engage the Mind

- Metered Movement:
  - Raise right arm on 1, 4, 7, 10, while counting:
  - Use two opposite motions.

<table>
<thead>
<tr>
<th>1;</th>
<th>10;</th>
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<tbody>
<tr>
<td>1, 2;</td>
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<td>1, 2, 3, 4, 5, 6, 7, 8, 9, 10.</td>
<td>10, 9, 8, 7, 6, 5, 4, 3, 2, 1.</td>
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</table>

“Any change, even a change for the better, is always accompanied by drawbacks and discomforts.”

– Arnold Bennett –

Engage the Mind

W = WALK

C = CLAP

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BEAT AND ANACRUSIS TO THE BEAT

“I hear and I forget.
I see and I remember.
I do and I understand.”

– Confucius –
Engage the Mind

*Research indicates that mental exercise can positively affect memory and physical coordination*

- Echo Claps/Chants
- Canon Claps/Chants

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**POLY-METRIC MOVEMENT**

```
1  2  3  4
2  3  4  1
3  4  1  2
4  1  2  3
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“Man cannot discover new oceans unless he has the courage to lose sight of the shore.”

— Andre Gide —

French writer, humanitarian, and moralist, 1947 Nobel Prize for Literature.

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Energize the Body

- The whole body is the instrument: *singing* is an athletic endeavor;
- develop body awareness,
- prepares the singers to sing;
- body must move, can NOT be STATIC or the musical phrase suffers!

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Energize the Body

- **Rationale**
  - Learning styles:
    - visual [30%], auditory [30%], kinesthetic [15%], multi-modal [10%]
  - Involves the singer and on-task behavior
    (Active vs. Passive)
  - Alleviates tension, energizes the body [singer’s instrument]:
    - “To prevent the body from becoming rigid, singers need to be physically involved: “take the focus off of the throat and avoid tension.”” [Choral Journal 38, 1997]
  - Creates a physical manifestation of the sound;
    - Instruct singers to walk in place (heel march), move hands in circle, snap on off-beat, clap-off, throw a frisbee, throw a dart, hurl the ‘hog’, rub pencil between hands, polish piano, ‘place tone’ in hand;

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“Change is the only constant.

**Hanging on is the only sin.**”

— Denise McCluggage —
**Energize the Body**

- Good for general health;
- Good for the brain; walking increases blood circulation
- As you walk, you effectively oxygenate your brain. Maybe this is why walking can “clear your head” and help you to think better.
- Studies showed that walking improves memory and significantly reduces risk of Alzheimer's and mental decline
  - Inactive individuals were twice as likely to develop Alzheimer's, compared to those who exercised vigorously at least three times a week.

**Exercises that loosen, relax and stretch the muscles**

<table>
<thead>
<tr>
<th>Exercise</th>
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<tbody>
<tr>
<td>Entire Body</td>
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<tr>
<td>Elbow to knees (stand/sit)</td>
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<tr>
<td>Touch Your Toes (stand/sit)</td>
</tr>
<tr>
<td>Jumping Jacks</td>
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<tr>
<td>Krueger Jacks</td>
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<tr>
<td>Shadow Boxing</td>
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<tr>
<td>Run Through Tires</td>
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<tr>
<td>“Walk in the Park.”</td>
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<tr>
<td>Curtsey squat</td>
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<tr>
<td>Back Conditioning</td>
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<tr>
<td>Spinal Stretch, Side Stretch, Rope Climbing</td>
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<tr>
<td>Shoulder Conditioning</td>
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<tr>
<td>Shoulder Roll, shrug, swim, shoulder flex</td>
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<tr>
<td>Back/Shoulder Conditioning</td>
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<tr>
<td>Massage, light chops, kitty cat scratches, rag doll</td>
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<tr>
<td>Head Conditioning</td>
</tr>
<tr>
<td>Head roll, The Turtle, Yes/No</td>
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<tr>
<td>Lower Limbs and Arms</td>
</tr>
<tr>
<td>Heel March, Rub with Towel, Shake It Out, the Lunge</td>
</tr>
<tr>
<td>Facial muscles, tongue and jaw</td>
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<tr>
<td>Massage temple, cheeks, jaw, neck, tongue base;</td>
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<tr>
<td>Tighten facial muscles then open the eyes and mouth as wide as possible</td>
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</tbody>
</table>

**Beat vs. Rhythm**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Locomotor realization of space — Dalcroze;</td>
</tr>
<tr>
<td>Work for continual motion;</td>
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<tr>
<td>Walk the rhythm, use hand on long notes;</td>
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<tr>
<td>Walk the beat, make 90 degree turn on each phrase;</td>
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<tr>
<td>Tap beat, beat division, beat subdivision, borrowed beat, long notes, rhythm of song, etc.;</td>
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<tr>
<td>Pairs, groups of fours, circles, etc.;</td>
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<tr>
<td>Patch meter, macro-beat or micro-beat while singing song;</td>
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</tbody>
</table>

**Movement Methods/Approaches**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Alexander Technique and its offshoot Body Mapping</td>
</tr>
<tr>
<td>Proper functioning during singing: explore how the body is actually constructed, how the body moves when you sing/play and what that has to do with the creation of sound. The quality of sound a musician makes is linked directly to the quality of their movement.</td>
</tr>
<tr>
<td>Feldenkrais Awareness Through Movement (Hibbard &amp; Blades-Zeller 2002)</td>
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<tr>
<td>Exercises for improving posture, flexibility, breathing, coordination, tension release, etc.;</td>
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<tr>
<td>Dalcroze Eurhythmics (Calderwood 2001)</td>
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<tr>
<td>Helps singers be more musically expressive;</td>
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<tr>
<td>Laban Movement Analysis (Hibbard 1994, 1992)</td>
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<tr>
<td>Help singers document types of movement;</td>
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<tr>
<td>Lessac Body Wisdom (Lessac, 1987)</td>
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<tr>
<td>Guides the kinesthetic senses of relaxation and energy in learning to use the voice;</td>
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<tr>
<td>Cooke's kinesio approach to warm-ups and choral rehearsal (Cooke 1995).</td>
</tr>
</tbody>
</table>
Alignment/Posture

Correct body alignment is essential to maximize the singer’s potential for positive voice production;

Should be active not passive, free not tense;

Terminology:

Centered, balanced, grounded, legs as shock absorbers

Use a check-list

Ears over shoulders, shoulders over hips, etc.

Arms in air, lower arms until they are perpendicular to the floor, roll thumbs back, exposing palms up, gradually lower arms without collapsing the chest, adjust head slightly

String tied to top of head

Seated position: crystal vase (Alexander Technique)

Praying and ballet position

Hands on rib cage; lift it

Conductor must exhibit correct alignment;

Use music stands; if possible one stand per singer;

Rehearse in standing position;

Use stools rather than chair;

Body alignment is a way of life.

Tension in the body (holding/locking) creates a white noise and affects the individual's ability to hear.

A lot of audiences can’t hear, but they sure can see.

Look the part!
Breathing

Correct breathing is the basis for developing vocal sound, for maintaining musical line and a sense of pitch, and of establishing vocal freedom.

Harold Decker

Three areas of psychomotor development
- Breath motion
  - Inhalation
  - Suspension
  - Exhalation
  - Recovery
- Breath flow
  - Slow, steady emission of the air column
  - Breath support
  - Energized air column with correct breath pressure

Focus on breath motion
- Begin from exhalation; exhalation creates a need for inhalation
- Exercise 1: lie on floor
- Exercise 2: Sit in chairs, lean over with elbow on knees; student partner uses 2 pencils
- Exercise 3: While standing, raise hands/arms to sides with inhalation and lower for exhalation
- Exercise 4: Puppy dog pant; laugh, giggle.

Basic Physiology of Breathing

Inhalation and Exhalation

Vocal sound has a breath behind it, Not in it.
Consonant Articulation

Unified Consonants

“Buy into all consonants.”

Consonants . . . establish rhythm;
. . . give energy to the line;

Cognitive:
• Consonants in front of the beat;
• Vowels on the beat;

Affective (Imagery):
• Consonants are like a stone skipping across water.
• Crisp consonants are like popping balloons.

Kinesthetic:
• Put hand in front of mouth and feel for breath: t, d, ch, k;
• Flip hand for “pr”, “br”, “r”, etc.

Consonant Placement

Crisp consonants

are like

popping balloons.

Engage the Vocal Mechanism

Initial Sounds
Initial Sounds
Engaging the Vocal Mechanism

- Initial sounds must engage the breath. Pitches are connected by air; they must ride on air;
- Get mucous off of cords;
- Do NOT blow cords open with glottal or plosives—damage folds;
- Speech to singing
  - Forward sound; most speak to low;
  - Easy, resonant sigh from upper to lower register;
  - Releases tension, lifts soft palate, coordinates breath with tone production;
  - Sirens: relax mechanism;
  - Glides
  - Stretch vocal folds;
  - Use “ee” and “oo”;

Initial Sounds
Engaging the Vocal Mechanism

- Variations on Slides
  - Breath flow, breath extension, flexible support, phonation, relaxation, registration;
  - Slides between pitches using a “v” sound (top teeth lightly touching the bottom lip) “vee”, “voh”, “voo”; use other consonants/vowels; best consonants: s, v, f;
  - Place hand in front of mouth and check for an even stream of air;
  - Dip knees on top note (#1, 2, 6, 7) or go up on toes on lowest pitch (#3, 4, 5, 8, 9, 10); Remember to use a physical motion that is opposite of the musical motion.

Initial Sounds
Engaging the Vocal Mechanism

- Lip or Tongue Trills
  - Breath flow, breath extension, breath energy, flexible support, phonation, relaxation, registration;
  - Apply to literature: develops continuous stream of breath over a phrase;

Initial Sounds
Engaging the Vocal Mechanism

- Hums
  - Breath-muscular awareness/control & resonance;
  - Using an “m” or “n”, place finger under nose; make sure air is expelled from the nose before sound begins;
  - Singers should be aware of the purpose of each vocalize;
Guidelines for Vocalizes

More Guidelines . . .
- Exercises should not be executed too rapidly; allow time for singers to adequately release and prepare the breath, etc.;
- DO NOT allow them to sing up/down to the next half, whole step;
- Alternate between major and minor tonalities;
- Alternate between chromatic scale, whole-tone scale, octatonic scale, and random movement within each vocalize;

Vocalize Guidelines
- Use simple 3-5 notes exercises; limit the number of lifts per exercise;
- Work in comfortable range building from the middle;
- To avoid undue weight in the voice and improve intonation: Begin with descending patterns and then move to ascending;
- Always let breath precede phonation;
- Alternate between front and back vowels (oo, ee); gradually add in other vowels;
- Breathe through the shape of the first vowel;
- Vowels should be paired with consonants to avoid beginning exercises with the glottal attack, which can be detrimental;
- Nasals (m, n), fricatives (f, s, z), etc.
- Consonants can be used to improve tone production
- Glides (j) can open the vowels and exercise the jaw;
- Velar (g), nasals (M, n) and plosives (d) discipline the soft palate;
- Labials (b, p), dentals (t, d), and alveolars (l, r) bring the sound forward.

More Guidelines . . .
- Make clear the PURPOSE of each vocalize; relate to music if possible;
- ALWAYS teach singers to LISTEN and ASSESS with every sound they make!
- Give feedback
- Positive reinforcement—be selective by reinforcing those behaviors that you want to perpetuate;
- Give prescriptive solutions to fix problems; INSIST on healthy singing.
Additional Guidelines . . .

- Limit the use of keyboard instruments
  - Encourages singers to sing behind the beat;
  - Always play tonic triad softly; do not play entire exercise as this ENABLES rather than EMPOWERS; conductor can NOT hear and assess;
  - Piano is percussion instrument; the voice is a wind instrument;
  - Encourage singers to breathe when piano/organ play up/down to the next half-step, whole-step, etc. Allow mechanism to recovery.

- Incorporate physical involvement;
  - Teaching aid; movement is multisensory and provides a link between sounds, sight and touch; it is tool for learning proper vocal techniques, basic music concerts, emotional responses to music and expressive musical interpretation;
  - Body should never be static; Breath, body and musical movement are related;
  - Instruct singers to walk in place (heel march), move hands in circle, snap on off-beat, clap-off, throw a frisbee, throw a dart, hurl the ‘hog’, rub pencil between hands, polish piano, ‘place tone’ in hand, etc.

Building Vibrant and Focused Tone
Unifying Vowels is KEY.

Your voice is what your vowel is;
your vowel is your tone.

Vowels

- Vowels . . . establish beauty of tone; sustains the tone;

- Unification of vowel sounds is the single-most important factor that influences intonation.

- Criticize and purify vowel sound: tendency to close the vowel in anticipation of next consonant. Do No Move the Tongue.

Identify Spaces for Different Vowels

- Work a variety of vowel combinations and feel the space and placement of the vowels:
  - Front–Back Close–Mid; Close–Open, etc.

- To avoid undue weight in the voice and improve intonation: Begin with descending patterns and then move to ascending:
**Pure Vowels**

A vowel is said to be pure when its sound can be isolated without movement of the articulators.

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<tr>
<th></th>
<th>Forward</th>
<th>Central</th>
<th>Back</th>
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<tbody>
<tr>
<td>Close</td>
<td>[i] oo</td>
<td>[i] oo</td>
<td>[i] oo</td>
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<tr>
<td>Mid</td>
<td>[e] ah</td>
<td>[e] ah</td>
<td>[e] ah</td>
</tr>
<tr>
<td>Open</td>
<td>[a] ah</td>
<td>[a] ah</td>
<td>[a] ah</td>
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**Vowel Formation**

Identify vowel space and placement

- **Variation:** Change the initial consonant;
- **Variation II:** Only use a consonant on the first pitch of each measure. Change the vowel on each beat as written.

**Vowels and Consonants**

- Vowels should be paired with consonants to avoid beginning exercises with the glottal attack, which can be detrimental.
- Nasals (m, n), fricatives (f, v, s, z), etc.
- Consonants can be used to improve tone production
  - Glides (j) can open the vowels and exercise the jaw;
  - Velar (g), nasals (m, n) and plosives (d) discipline the soft palate;
  - Labials (b, p), dentals (t, d), and alveolars (l, r) bring the sound forward.

**Identify Spaces for Different Vowels**

- Breathe through the shape of the first vowel;
- Always let breath precede phonation;
- Use simple 3-5 notes exercises; limit the number of lifts per exercise;
Building Tone
Vowels have different Space and Placement

- Breathe through the shape of the first vowel;
- Always let breath precede phonation;

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Building Tone
Vowels have different Space and Placement

- Keep the breath moving on each vowel to avoid aspirated h’s.
- Variation: Rearticulate the consonant on the initial change of a vowel.

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Building Tone
Vowels have different Space and Placement

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CRITICIZE
and PURIFY
your vowel sound.
Building Tone – Unifying Vowels

Always teach singers to listen and assess with every sound they make!

Vowel Chart

Vowel Placement

Vowel Combinations

Building Tone – Unifying Vowels

Savor...

The sound of the vowel on each individual note.
Building Tone-Unifying Vowels

**Scale of Pure English Vowel Sounds**

<table>
<thead>
<tr>
<th>Tongue Vowels</th>
<th>Lip Vowels</th>
</tr>
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<tbody>
<tr>
<td>[a] [e] [i] [o] [u]</td>
<td>[a] [e] [i] [o] [u]</td>
</tr>
</tbody>
</table>

Closed | Open | Closed

The schwa is an unstressed vowel sound as in the of about. [a]

**Circle of Vowels**

- **Four Vowels**
  - Soon
  - See
  - So
  - Father

- **Six Vowels**
  - Soon
  - Sit
  - So
  - Father
  - See

**Vowels**

**Kinesthetic**
- Use hands by side of face;
- Pointer fingers on each side of the corner of the mouth; thumbs under the chin;
- Pinky finger on chin;
- Cupped hand motion to lift palate;
- Mirror with oval shape drawn on it;
- Use hand motions for each vowel.

**Cognitive**
- Precast the vowel by breathing through the mouth position for the vowel.
- Use a “v” to start breath before sound on initial words that begin with a vowel;
- Whisper texts to clearly form consonants and vowels;
- To develop a legato line, sing on the correct vowel for each word but precede the vowel with an “n”;
- To focus the tone and give the vowels a forward placement precede the vowel with a “t”;
- To relax the jaw, use a “y”.

**Building Tone Unifying Vowels and Vibrato**

- Use vibrato as a means of expression, not as a lack of technique.
- Spin the tone!
- Use circular motion with hand;
- Think of a child’s spinning top, a Jewish dreidel.
- Sing into the center of the pitch, the sleeve of the sound.
Phonation
the sound made by the vibration of vocal folds modified by the resonance of the vocal tract.

On Set
A breathy onset will generally result in breathy phonation, and a glottal onset in pressed, or shouty phonation. These exercises are important because the way that a sound begins is generally the way it continues.

Phonation
Sound is produced by passing air through the vocal cords (folds) as they open (Adducting—come apart) to let air in and out of the lungs for breathing and close (Adducting—come together) to vibrate and produce vocal sound.

On-Set
Remember to breathe through the vowel shape; throw frisbee or dart to start with breath.

Registration
The vocal cords are muscles that change in thickness and length. As one sing ascending pitches the vocal cords automatically lengthen and thin, whilst singing descending pitches causes the cords to become shorter and thicker.

Generally speaking the word ‘register’ is used to describe sections of the voice loosely categorized by how cords vibrate, glottal and pharyngeal shape, where the voice resonates in the body and the resulting quality or timbre of the voice.

- Falsetto: lightest register and requires loose vocal cords and incomplete closure which produces a breathy voice that can sound quite feminine although it is generally used by men.
- Whistle Voice or Super Head: top end of the vocal range which sounds similar to a whistle or squeal. Few singers use the whistle register although it has gained popularity amongst some female commercial artists.
- Head Voice or Upper Register: vocal folds lengthen as one ascend the range into high notes. The resonance is usually felt in the cheekbone, teeth/lips area which is sometimes referred to as the mask or masque.
- Middle Voice or Middle Register: This section of the voice may also be referred to as mix or blend and it describes an area where a vocal bridge or passaggio may occur.
- Chest Voice or Chest Register: Usually a deep or rich full sound that is most commonly used during speech. Air flows over the vocal folds which are fully apart and the vibration or resonance can often be felt in the upper chest. This is the area of the voice where you should be singing the lower notes of your range.
- Vocal Fry: term used to describe lowest part of the voice. It is effectively a toneless ‘rattle’, rasp or roughness produced by the vocal cords at the lower end of the range which is often used as an effect in rock singing.
Registration—Transition

- Indications of transition areas include:
  1. A change in note tone and quality;
  2. A sudden shift in vocal registration;
  3. Note drops or "breaks" in the voice;
  4. Difficulty blending or creating a mix.

Registration

Understanding the vocal weight factor in singing.

- Vocal Weight
  - "too much thick vocal fold mass used too high in pitch, often involving taking one register higher than it is designed to function in pitch".
  - In order for balance in registration to be possible, this weight must be dropped as the singer goes toward the higher range.
  - Singers may sound:
    - heavy and dark when using too much vocal weight;
    - white and colorless if the larynx rises.

Registration—Vocalizes

- Three to five note slides;
- Lip Trills;
- Hum;
- Descending pentachords (5 note scales) on ‘ng’
- Messa di voce
  - Gradual swelling and diminishing of sound on a given pitch.

Resonance

Building Forward Resonance

- Vibrations must be transmitted to all vibratory parts of the body (nose, sinuses, mouth, pharynx, throat, etc.)
- Sing each exercises softly then gradually increase the dynamic level while maintaining phrasing.
- M, N, NG, V and L are good consonants for developing resonance.
  - NG: keep the mouth wide open in an ‘ah’ vowel shape;
  - N: tip of tongues should rest lightly against the hard palate.
Sing each exercise softly then gradually increase the dynamic level while maintaining phrasing.

M, N, and NG are good consonants for developing resonance.

NG: Remember to keep the mouth wide open in an ‘ah’ vowel shape;

N: Tip of tongue should rest lightly against the hard palate.

Check for air flow under nose;

Place finger tips on cheek bones and feel for vibrations.
Resonance, Relaxation

Resonance, Air Flow

Diaphragm Activation/Agility

Sing slowly and gradually increase the tempo.
Remember to use the tip of the tongue to form the 'n' and relax the jaw.

Tongue Exercises
- Stretch the tongue out of the mouth as far as possible, downward toward the chin, and then up toward the nose, and side-to-side toward the cheeks. Polish all teeth with the tip of the tongue.
- Place your hand on your chin and say “Yah, Yah, Yah”, gently guiding your chin down with each syllable. Your tongue will relax and pull forward a bit. Practice saying “Yah-Yah” like this in different, yet comfortable speaking pitches, noticing how relaxed your jaw feels.
- In front of a mirror relax and let your tongue stick out. Now on a sustained “ah” slide up and down in pitch a few notes like a siren sound. Do not do this in a very loud voice. At first your tongue may tighten on the way up. Try to practice until you can see and feel it relaxing. Next wag the tongue (still outside of your mouth) gently side to side while sliding up and down in pitch. Never force these exercises.
- In front of a mirror say “ee-ah” several times with an open and relaxed jaw. Do this so that you only see your tongue move up and down inside of your mouth while the jaw does nothing. Speak or sing this exercise in low, medium and high pitch levels. You can start this by holding the jaw a bit with one hand.

Freedom of Vocal Tract Articulators
The vocal tract articulators shape the sound into understandable language. It involves a variety of muscles and articulators to shape the sound and breath into language.

Articulatory Anatomy
Moveable Articulators:
- Tongue, Lips, Soft Palate, Jaw (mandible), Facial Muscles and Pharynx
Fixed Articulators:
- Teeth and Hard Palate
Tongue

- Lodge the tip of the tongue behind the bottom teeth while protruding the rest of the tongue as far out of the mouth as possible. At the same time, stretch the velum while thinking of moving the tongue and velum in opposite directions. Add phonation, making sure the tongue does not retract;

```
A. Slide  B. Slide  C. Vocalize
ThlThlThlThlThlThlThlThlThlThlThlThlThl
```

- Place your hand on your chin and let the tongue stick out; make sure it doesn't retract.

```
D. Vocalize
ThlThlThlThlThlThl
```

Relaxation, Buoyancy, & Activation of Articulators

**A.** (Borrom Bubbles with hands)

```
Zing-a-ma-ja, zing-a-ma-ja, zing-a-ma-ja, zing-a-ma-ja, zing, zing.
```

**B.**

```
```

Also perform in minor tonality.

Articulation

**Staccato-Legato**

Flexibility and Agility

Use circular hand motions on each hand.

Use a variety of vowel and consonant combinations.
Flexibility and Agility

Expression

Expression is the variation of vocal sound to convey emotion, or to communicate more vividly the meaning of a text. The variables include dynamics, tone color, tempo and diction.

Facial and Voice Inflection

- Tell story;
- Use facial and body motion;
- Ideal for younger singers.

The Little Green Frog

Dynamics

“Dynamics come from intensity, which comes from incentive, which comes from emotional content.”

William Dehning

Crescendo–Diminuendo

Kinesthetic & Cognitive

- Turn water faucet up or down;
- Put all of the forte sounds in a smaller box to sing piano;
- Not crescendo but bloom.

Cognitive

- Stress can be dramatic or subtle;
- Subtle variations of each dynamic without moving to the next higher or lower dynamic.
Alternate Choral Styles
Jazz, Swing, Pop

Sing vocalizes with even eighths and then repeat ‘swinging’ the eighth (quarter/eighth triplets).

Building Balance

- Shift singers to other voice parts to balance choir;
- Teach voice leading skills (fa to mi, ti to do, etc.);
- Use pyramid as overtones from the low pitches will augment the upper notes and generate a rich tone.

Building Blend

“If a choir does not arrive at the vowel together, how can you have blend?”

Robert Shaw

- Most significant difference between sound of one choir and another is the degree of blend.
- Age, ethnic, cultural, intellectual, and musical diversity of singers can make blend difficult.
- Disciplined listening: singers must listen to others and adjust:
  - Pitch
  - Volume
  - Rhythm
  - Vowel colors
  - Vibrato
  (voices must move together)
Vocalizes:
Developed from Repertoire

Integrate Text into Learning Process

- Word inflection: all words are not stressed equally;
- “Simply that music performed well, will always be shaped by a crescendo leading to a stressed note (syllable or word) and then followed by a diminuendo.” — Don Neuen
- Exaggerate variations in dynamics and articulation during learning process:

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Vocalizes Based on Repertoire

Singer should know that. . .

- As you sing higher, you must use more energy.
- As you sing higher, you must use more space.
- As you sing higher, you must use more depth.
- The natural tendency is for the voice to thin out and tighten or whiten as the pitch rises.
- To prevent this, maintain proper laryngeal position and consistency of tone quality.
- Each tone as you move up the scale requires a little deeper sensation than the one just before it.
- As you sing higher, the support mechanism must be deeply anchored within the body.
- As you sing lower, the support mechanism must be released.
Singers should avoid . . .

- Reaching up mentally for high notes or reaching down mentally for low notes.
- Raising the chin, tilting the head back, lifting the shoulders, elevating the larynx, forcing the chest up for high notes.
- Pulling the chin down against the throat, tilting the head forward, depressing the larynx for low notes.
- Pulling in too strongly on the upper abdomen—supplying too much breath pressure to the larynx for high notes.
- Pulling back the corners of the mouth into the 'operatic smile' on high notes. This causes a shrillness in the tone quality.
- Letting the sound become breathy or dark for low notes. Keep the sound forward.
Pentachords—Major

Pentachords—Minor

Chord Progressions

Major Tonality

Minor Tonality

Vocal Pitch Exercises and Graphs

- Progressive Sight Singing
- 2nd edition
- Oxford University Press
- Companion Website
- E-Mail
  - ckruegermusic@gmail.com

Vocalizes Based on Vocal Pitch Exercises
Perfect 4—Major Tonality

Perfect 4—Minor Tonality

Tonic Triad Inversions

Tonic & Dominant Triads

Tonic & Sub-Dominant Triads

I, IV, V7 Chords
Major—Minor Tonality

Accidentals

Church Modes

There are no shortcuts to any place worth going.

~Beverly Sills~
The Mature Voice

The ‘good’, the ‘bad’ and the ‘ugly’.

Mature (Aging) Voice

Physical Changes

- Correlation between healthy lifestyle and longevity
- Nutrition
- Exercise: age related muscle atrophy can be slowed
- Good vocal/oral health
- Daily vocalization can help reduce vocal tremor and increase accuracy and endurance
- Hydration
- Rest
- Appropriate voice part
- May need to accept some “adjustments”

Chronological age is less important than biological age.

Natural Decline in Muscle Mass and Aerobic Capacity

- Reduction in lung capacity, loss of elasticity of lung tissue
  - 40% decrease in vital, capacity from age 20 to 80
- Not enough breath support to allow the voice to function correctly
  - “Wobbly” vs. “vibrato”
- Weakened and unresponsive to tone
- Pitch inaccuracy
- Reduced endocrine function (number of lubricating glands decline) and water metabolism
  - Dry folds: Hydrate, hydrate, hydrate as it keeps the larynx moist
- Edema (swelling of the folds and increase in mass of folds)
- Degenerative changes as a result of decreased blood supply to the larynx
  - Studies indicate 60% of individuals 60-70 years of age show endoscopic evidence of vocal fold atrophy (Loss of muscle fibers)
  - Difficulty closing the vocal folds uniformly causing a weaker, breathier sound
  - Limits range of pitch, intensity and register adjustment
  - Messages from the brain to the voice box may not be as efficient as nerve endings to the area die

Differences Between Genders

Females
- Vocal changes occur around menopause
- Vocal folds lose some of their natural elasticity
- Mucus membrane thickens (takes more air to vibrate the folds)
- Average fundamental frequency of the voice lowers
- Difficulty of accuracy of pitches and intonation
  - Due to vocal jitter or vibratory asynchrony
- Voice tremor due to asymmetrical vibration
- Vocal quality may become more husky
- Hormones: women in mid-30's should have hormone levels checked

Males
- Structural changes in vocal mechanism more evident in males
- Vocal changes occur around age 60
- Men’s voices lower until age 40-50, then raises with increasing age
- The “ageing” voice is more breathy
- Results in breathy and quiet tone quality, accuracy of tone is hindered, imprecise articulation

Physical Changes

- Ossification and calcification of laryngeal cartilages
  - Leads to vocal cord adduction
  - Causes vocal cord cedema
  - Ossification of arytenoids
- Cricoarytenoid arthritis
  - Sensation of fullness in the throat;
  - Pain when speaking or swallowing;
  - Pain radiating to the ear
- Hearing loss
  - Aural feedback needed for accurate pitch and tone quality is disrupted and brain has no way to monitor the sound being produced
- Articulator
  - Loss of saliva;
  - Present challenges with quick and precise articulations
- Changes in oral cavity
  - Dentures
  - Xerostomia or dry mouth

Physical Changes

- Control of Voice
  - Softness:
    - Loss of breathing foundation and support;
    - Atrophy of muscle and joints do not allow full closure
  - Loudness:
    - Loss of control due to atrophy;
    - Hearing loss forces singer to sing louder to hear themselves
- Psychological considerations
  - Frustration with loss of ability can cause tension in the voice
  - Assure singers that this is natural and that they can revitalize the voice
  - Do not call attention to individual vocal problems during rehearsals
  - Create an environment for learning good singing habits and challenging old beliefs.
“We don’t stop playing because we grow old; we grow old because we stop playing.”

- George Bernard Shaw

Rehabilitation

- Many of the changes associated with aging voices are due to lack of conditioning rather than inevitable change.
- These changes can often be reversed; rehabilitation can improve vocal function and minimize the characteristics of the "old" voice.
- Personal commitment
  - If an 18-year-old sings at 50% of capacity, the sound may be acceptable.
  - At age 65, 50% will elicit an unacceptable performance.
  - Singer is responsible for the energy that he/she brings to the rehearsal.

Rehabilitation Suggestions:
- Exercise, general body conditioning, walking, swimming, etc.;
- Appropriate medical supervision of medications and their effect on the voice, cardiac and respiratory functions, etc.;
- Adherence to healthy vocal hygiene: daily water intake, sufficient sleep, balanced diet, fitness (daily exercise);
- Systematic daily voice use and practice of healthy voice exercises.
  - Aging voices will not be ready to perform in an acceptable manner if the singers only practice once or twice a week;
  - All singers must be reminded about the primacy of healthy singing technique. As voices age, the benefits of keeping the singing muscles well-strengthened are significant.
- Process and difficulty older singers may be experiencing is similar to that of developing teenage singers.
- Use same tools and techniques as with high school singers.
- The only difference is that the desired result is not the development of a voice but the rehabilitation and/or maintenance of the existing voice.

A conductor spends 95% of his/her time telling the choir to read what’s on the page.

Teach them to read and write, to aurally differentiate (assess sound), how to fix the problem, and how to be musically expressive.

It begins with the warm-up. Make it count!

Musicianship Skills
Harmony Skills

Literature

Vocal Skills
Summary

- Employ a systematic approach to voice building;
- Energize the Body and Engage the Mind;
- Incorporate physical movement;
- Singers should be aware of the purpose of each vocalize;
- Limit the number of lifts and the length of vocalizes;
- Give feedback; reinforce desired skills;
- Teach singers to listen, assess, and adjust; Active vs. Passive;
- Incorporate major/minor vocalizes;
- Use chromatic, whole-tone, octatonic, and random movement;
- Limit the use of keyboard instruments.
- Mature (aging) voices can be rehabilitated;

Resources on the Web

- Video Clips/Articles of healthy and damaged voices. Used by speech therapists.
  - www.voiceinfo.org
  - http://www.ncvs.org (National Center for Voice & Speech)
- Voice and Speech Source
  - http://www.yorku.ca/earmstro/journey/
- Articulatory Anatomy
  - www.uiowa.edu/~acadtech/phonetics/anatomy.html
- Vocal Anatomy
  - www.nghs.org/vocal-anatomy.html
  - www.investigator簕.org/vocal-anatomy.html
- Vocal Health
  - www.voicefocus.com/vocal-anatomy.html
  - www.lionsvoiceclinic.umn.edu/page2.htm
- Vocal Health
  - www.TheSingersResource.com/vocal_health
- Video Stroboscopy of the Vocal Cords - YouTube
  - www.youtube.com/watch?v=gPmZzUKz3f0
  - www.youtube.com/watch?v=1zD0tG6sG0

Teaching Tool Websites

- Free "positive feedback" postcards
  http://www.vistaprint.com
- Main Website with all sorts of teacher tools
  http://www.murray.k12.ga.us/teacher/kara%20leonard/TeacherTools.htm
- Game show templates and sound byte
  http://www.murray.k12.ga.us/teacher/kara%20leonard/MiniT/Games/Games.htm#gameshows

2012 Workshops

- June 18-22 and June 25-29, Montreat Presbyterian Worship and Music Conference
  Website: http://www.presbymusic.org/montreat.html
- July 17-18, Bay Port High School, Green Bay, WI
  Robbie Doelger: robeedoel@hssd.k12.wi.us
- July 23-25, Shenandoah University, Winchester, VA
  Joanna Claycomb: ClaycomJ@frederick.k12.va.us
  Jeffrey Marlatt: jmarlatt@su.edu
- July 30-August 1, Meredith College, Raleigh, NC
  Jane Bruer: jane.bruer@gmail.com
  Website: http://www.ncmusicworkshop.com